MGK SENSOR

Electrochemical Ammonia Sensor

NH3-MD-40

Design Features

- Linearity
- Excellent Selectivity (small sensitivity to H2S)
- Excellent Durability to NH3 Exposure
- Stability
- High Reliability
- Perfect Leak-proof Structure

Specifications

Sensitivity Characteristics

Detection Gas	Ammonia
Detection Range	0 ~ 200ppm
Maximum Overload	500ppm
Output Signal	40 ± 12 nA/ppm
Repeatability	± 10%
Resolution	2ppm
Typical Baseline Range (pure air)	± 4ppm
Typical Response Time (t90)	< 90seconds
Baseline Shift (−20 ~ 40℃)	< 4ppm
Long Term Output Drift	< 2% / month
Expected Life Time	> 2years

Performance data conditions: 20 ℃ , 50%RH and 1013mBar, using MGK SENSOR recommended circuitry.

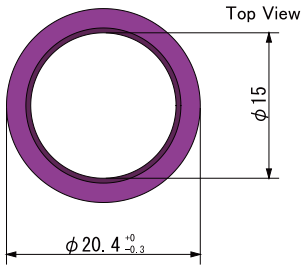
Operating Conditions

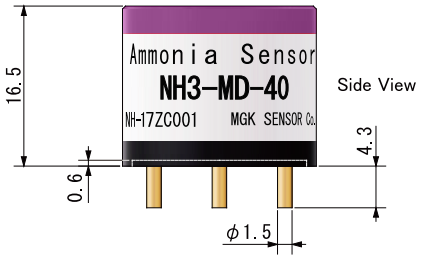
Operating Temperature	−30 ~ 50℃
Operating Humidity	15 ~ 90% RH
Operating Pressure Range	Atmospheric ± 10%
Recommended Load Resistor	33Ω
Bias Voltage	Not required
Position Sensitivity	None
Recommended Storage Temp.	0 ~ 20℃
Storage Life	6months

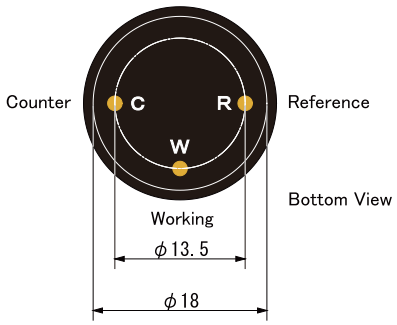
Physical Characteristics

Cap Color	Purple
Weight	4.5 g (approx.)

Appearance and Dimensions







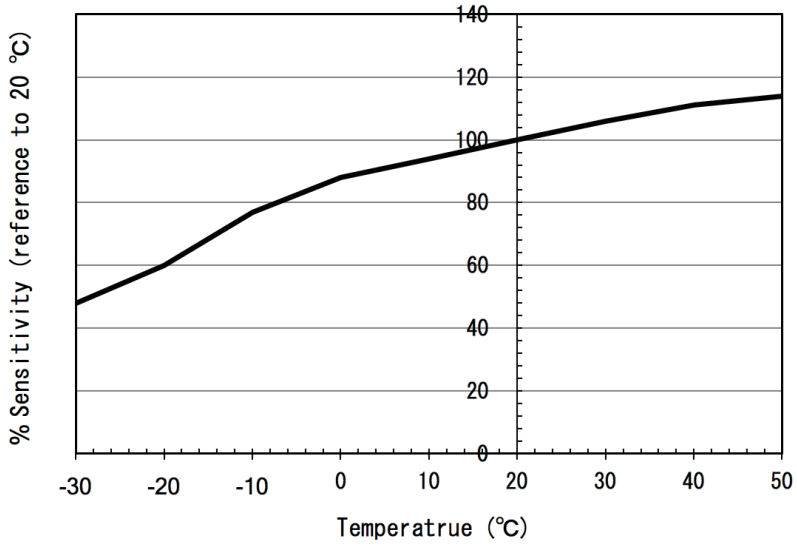
All dimensions in mm
All tolerance +/-0.1 mm unless otherwise stated

NOTE: Do not solder to electrode pins. Use exclusive sockets. Do not blow organic solvents, paints, chemical agents, oils or high concentration gases onto sensor.

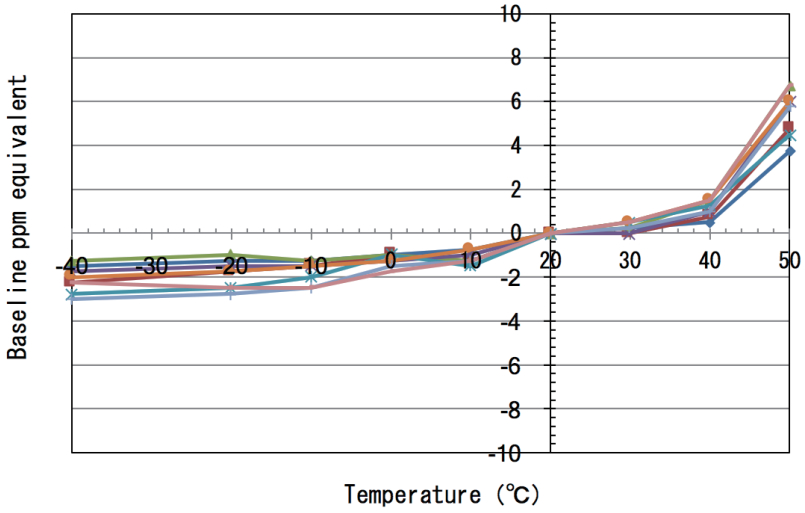
Typical Cross Sensitivities

Gas	Concentration (ppm)	Typical Nitrogen Dioxide Concentration (ppm) Equivalent
Ammonia	100	100
Hydrogen Sulfide	20	−1.5 ～ 0
Sulphur Dioxide	20	−2
Carbon Dioxide	5000	0
Carbon Monoxide	300	0
Hydrogen	1000	0
Nitrogen Dioxide	20	−1～ 0
Nitric Oxide	30	0
Ethanol	100	0

Temperature Dependency



Baseline Shift



NOTE: NH3-MD-40 DN-2022 Aug. 2011

As the products may be use outside control of MGK SENSOR, the information provided is given without legal responsibility. Customer should test under their own conditions, to ensure that the sensors are suitable for their own requirements.
In accordance with the company' s policy of continued product improvement, MGK SENSOR reserves the right to make product changes without notice.

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